



3500 Pelco Way  
Clovis, CA 93612-5699  
USA

In North America & Canada:  
Tel (800) 289-9100  
FAX (800) 289-9150

International Customers:  
Tel (1-559) 292-1981  
FAX (1-559) 348-1120

[www.pelco.com](http://www.pelco.com)

## **C2400M-A (8/99)**

### **HD35/HD3515 Series**

### **Heater and Defroster Kit**

#### **IMPORTANT SAFEGUARDS AND WARNINGS**

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by qualified service personnel and conform to all local codes.
2. Only use replacement parts recommended by Pelco.

The product and/or manual may bear the following marks:



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

#### **CAUTION:**

RISK OF ELECTRIC SHOCK.  
DO NOT OPEN.

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

#### **DESCRIPTION**

Heater and defroster kits in the HD35/HD3515 Series are designed for enclosures in the EH3500 Series and EH3515L Legacy® Series. The HD35 Heater and Defroster Kit is designed for enclosures only in the EH3508 Series and EH3512 Series. The HD3515 Heater and Defroster Kit is designed for enclosures only in the EH3515 Series and EH3515L Legacy® Series.

These kits contain a thermostatically controlled heater and a continuous-duty defroster. The heater turns on when the temperature drops to 50°F (10°C) and turns off when the temperature reaches 80°F (27°C).

The heater and defroster are attached to a bracket that replaces the window brackets currently used to hold the viewing window in place. Because of this bracket, the viewing window size is reduced to a two-inch (5.08 cm) diameter circle.

The HD3515 Heater and Defroster Kit contains two heaters. You install one heater in the front of the enclosure and the other heater in the rear of the enclosure. The rear heater is attached to a rear heater bracket, and the rear heater bracket attaches to the rear of the enclosure. If you are also installing a blower kit, you install the rear heater bracket between the blower and rear of the enclosure.

#### **Models**

HD35-1	Heater and defroster kit for EH3508 and EH3512 enclosures; 120 VAC; 13 watts
HD35-2	Heater and defroster kit for EH3508 and EH3512 enclosures; 24 VAC; 13 watts
HD35-3	Heater and defroster kit for EH3508 and EH3512 enclosures; 230 VAC; 13 watts
HD3515-1	Heater and defroster kit for EH3515 and EH3515L enclosures; 120 VAC; 23 watts
HD3515-2	Heater and defroster kit for EH3515 and EH3515L enclosures; 24 VAC; 23 watts
HD3515-3	Heater and defroster kit for EH3515 and EH3515L enclosures; 230 VAC; 23 watts

#### **INSTALLATION**

The following items are supplied:

- |   |                                                                                    |
|---|------------------------------------------------------------------------------------|
| 1 | Heater and defroster attached to the front heater bracket                          |
| 1 | Heater attached to the rear heater bracket (HD3515 Series and HD3515L Series only) |
| 1 | PC board                                                                           |

Hardware to attach the heater bracket(s)

**EH3508/EH3512 Series**

- 4 3/8-inch screws
- 4 #6 nylon washers

**EH3515/EH3515L Series**

- 4 3/8-inch screws
- 4 #6 nylon washers
- 2 1/4-inch Phillips pan head screws
- 2 #6 lock washers

Hardware to attach the PC board (EH3508/EH3512/EH3515 only)

- 2 6-32 x 3/8-inch Phillips pan head screws
- 4 #6 nylon washers
- 1 #6 lock washer

1. Disconnect all sources of power from the enclosure.
2. Unlatch and open the lid.
3. Remove the camera and camera sled.
  - a. Disconnect the power and video from the camera.
  - b. Loosen the screws that hold the camera sled in place.
  - c. Slide the sled forward so it can be lifted out over the screws. **Do not lift the sled out yet.**
  - d. Retighten the screws so the sliding bar under the sled lip will not move. This will assure that you reinstall the camera and sled in the same place.
  - e. Remove the camera and sled.
4. If there is a heater pad installed in the bottom of the enclosure or a defroster pad installed around the viewing window, disconnect and remove these pads.
5. Remove the bottom window bracket, and then remove the top window bracket. **Important...** Do not try to reinstall the top and bottom window brackets.
6. Attach the heater bracket (with heater and defroster attached) to the inside face of the window using the screws provided (refer to Figure 1).
7. If you are installing the HD3515 Heater and Defroster Kit, perform the following steps:
  - a. If a blower was previously installed in the enclosure, remove the blower now.
  - b. Place the rear heater bracket (with attached heater) at the rear of the enclosure (refer to Figure 1). Be sure the heater is at the bottom of the enclosure and faces the rear of the enclosure.
  - c. Do one of the following:

If a blower was previously installed, place the blower against the rear heater bracket and attach to the enclosure using the screws previously removed from the blower. Be sure the arrow on the blower housing is pointing toward the viewing window.

Or...

Using the screws provided, attach the rear heater bracket to the rear of the enclosure.
8. Do the following only for enclosures in the EH3512 Series and EH3515 Series:
  - a. Place the PC board at the rear of the enclosure in front of the blower (if installed) and heater bracket. Lay the PC board across the bottom of the enclosure with the thermostat and connectors facing up. **Note...** If a blower is not installed, place the PC board approximately 1 1/2 inches in front of the rear heater bracket.
  - b. Using the two 6-32 x 3/8-inch self tapping screws, two star washers, and four nylon washers provided, attach the PC board to the slots running along the bottom of the enclosure (refer to Figure 1).
9. Route the heater and defroster wires from the front of the enclosure so they will be underneath the camera sled or between the track rail and body of the enclosure.

- Connect the heater and defroster wires to the PC board (refer to Figure 2). Be sure the wires are not obstructing other accessories within the enclosure. If you are installing HD3515-2 Heater Kit (24 VAC), refer to Table A, 24 VAC Wiring Distances.

- Connect the front and rear heater wires to the HTRS connector (P5) on the circuit board and the defroster wires to the FAN connector (P4) (refer to Figure 3). You are installing a lower wattage defroster. You must connect the defroster to FAN (P4) on the PC board to operate continuously. If you have a blower installed (which is also connected to P4), splice the defroster wires to the fan wires. If you are installing HD3515-2 Heater Kit (24 VAC), refer to Table A, 24 VAC Wiring Distances.



1 INPUT, AC HIGH  
2 INPUT, AC LOW (NEUTRAL)  
3 GROUND  
4 DEFROSTER  
5 DEFROSTER  
6  
7 FRONT HEATER  
8 FRONT HEATER  
9 REAR HEATER  
10 REAR HEATER

MODELS HD35 AND HD3515 SERIES  
MODEL HD3515 SERIES ONLY

**Figure 2. Wiring Diagram**



11. Reinstall the camera and sled. **Caution...**If the wiring is routed underneath the camera sled, be sure you do not bind the wiring when reinstalling the camera sled and camera.
12. Close the enclosure lid, and latch.
13. Reconnect power to the enclosure.

**Table A. 24 VAC Wiring Distances**

The following are the recommended maximum distances for 24 VAC applications and are calculated with a 10-percent voltage drop. (Ten percent is generally the maximum allowable voltage drop for AC-powered devices.)

**EXAMPLE:** An enclosure that requires 80 vA and is installed 35 feet (10 m) from the transformer would require a minimum wire gauge of 20 AWG.

**NOTE:** Distances are calculated in feet; values in parentheses are meters.

		Wire Gauge					
Total vA consumed		20	18	16	14	12	10
	10	283 (86)	451 (137)	716 (218)	1142 (348)	1811 (551)	2880 (877)
	20	141 (42)	225 (68)	358 (109)	571 (174)	905 (275)	1440 (438)
	30	94 (28)	150 (45)	238 (72)	380 (115)	603 (183)	960 (292)
	40	70 (21)	112 (34)	179 (54)	285 (86)	452 (137)	720 (219)
	50	56 (17)	90 (27)	143 (43)	228 (69)	362 (110)	576 (175)
	60	47 (14)	75 (22)	119 (36)	190 (57)	301 (91)	480 (146)
	70	40 (12)	64 (19)	102 (31)	163 (49)	258 (78)	411 (125)
	80	35 (10)	56 (17)	89 (27)	142 (43)	226 (68)	360 (109)
	90	31 (9)	50 (15)	79 (24)	126 (38)	201 (61)	320 (97)
	100	28 (8)	45 (13)	71 (21)	114 (34)	181 (55)	288 (87)
		Maximum distance from transformer to load					

## PRODUCT WARRANTY AND RETURN INFORMATION

### WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and VW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

### RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department  
Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco  
3500 Pelco Way  
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors  
473 Eccles Avenue  
South San Francisco, CA 94080 USA  
Phone: 650-737-1700  
Fax: 650-737-0933

## REVISION HISTORY

Manual #	Date	Comments
C2400M	6/99	Original version.
C2400M-A	7/99	Revised HD3515 series wattage. Revised Legacy® wiring instructions.
C2400M-A	8/99	Revised parts lists. Revised Figure 1.